



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,467	07/29/2003	Mark A. Lewandowski	3042.EEM	7305

7590

06/20/2006

Charles W. Almer
National Starch and Chemical
10 Finderne Avenue
Bridgewater, NJ 08807

EXAMINER

TUROC, DAVID P

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,467

Applicant(s)

LEWANDOWSKI ET AL.

Examiner

David Turocy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/10/04, 6/7/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, drawn to method of printing electroluminescent lamp, classified in class 427, subclass 68.
 - II. Claims 10-12, drawn to electroluminescent lamp, classified in class 428, subclass 690.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the layers on the electroluminescent lamp may be deposited by other materially different coating processes.
3. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Charles W. Almer on May 23, 2005 with Examiner Guharay a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-12 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1762

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

6. Claim 2 is objected to because of the following informalities: Claim 2 appears to include a typographical error, wherein the preamble is "claim1" rather than the more appropriate "claim 1". Appropriate correction is required.

7. Claim 4 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 requires the limitation of printing a phosphor layer on the front electrode, which is required by claim 4.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6916501 by Krohn et al., hereafter Krohn alone or in view of US Patent Publication 2002/0014833 by Wada et al., hereafter Wada.

Krohn teaches a method of forming a EL lamp comprising providing a front electrode, printing a phosphor layer on the front electrode, curing the front electrode and phosphor layer, printing a dielectric layer on the phosphor layer, curing the dielectric layer, printing a rear electrode on the dielectric layer and curing the rear electrode (abstract, column 4, lines 25-40).

Krohn discloses, the figures, printing the layers all the same size, and fails to disclose forming an EL Lamp with consecutive layers have decreasing dimensions as claimed. It is the examiners position that the relative dimensions of the successive layers is a matter of design choice and therefore it would have been obvious to one of

Art Unit: 1762

ordinary skill in the art to select any dimensions for the successive layers, including those as claimed, with a reasonable expectation of successfully forming an EL Lamp. In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

Alternatively, while the examiner maintains the above, the examiner cites Wada as a showing of known structure for an EL Lamp. Wada teaching of an EL Lamp discloses forming successive layers, each with reduced dimensions comparable to the previous layer (Figures). While, Wada does not disclose specific dimensions associated with each layer, the layers shown in the figures would suggest to one of ordinary skill in the art to reduce the dimensions on successive layers to form an operable EL Lamp. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the dimensions on successive layers when forming an EL Lamp with a reasonable expectation of success.

Claim 2: Krohn discloses screen-printing the phosphor layer, dielectric layer, and the rear electrode (Column 13, lines 39-40).

Claim 3: Krohn discloses screen printing an encapsulating clear coat on the rear electrode (example 1).

Art Unit: 1762

Claim 5: Krohn discloses a substrate of polyester and also discloses a front electrode of a clear polymer that is printed on the polyester (column 10, lines 15-25, Column 13, lines 10-13).

Claim 6: Krohn discloses the front electrode comprises ITO sputtered on polyester (Column 13, lines 10-13).

Claim 7: Krohn discloses the dielectric layer comprises a monomer, an acrylated resin, a solvent, a photo initiator, a flow air, and a pigment (Column 13, lines 30-40, Column 23, line 17, Column 25, line 50).

Claim 8: Krohn discloses the front electrode comprising a solvent, a resin, and a silver pigment (Column 13, lines 30-40, Column 21, lines 30-Column 22, line 25).

Claim 9: Krohn teaches a clear dielectric layer comprising a monomer, an acrylated resin, a photo initiator, and a flow aid (Column 25, line 50-Column 26, line 67).

11. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5976613 by Janusauskas, hereafter Janusauskas in view of US Patent Publication 2002/0014833 by Wada et al., hereafter Wada.

Art Unit: 1762

Janusauskas teaches a method of forming a EL lamp comprising providing a front electrode, screen printing a phosphor layer on the front electrode, screen printing a dielectric layer on the phosphor layer, and screen printing a rear electrode on the dielectric layer (Column 3, line 40- Column 4, line 60). The layers will inherently be cured, to some degree by the thermal curing, due to the content of the coatings.

Claim 3: Janusauskas discloses screen printing an encapsulating layer on the rear electrode (Column 4, line 35-45).

Claim 6: Janusauskas discloses the front electrode comprises ITO sputtered on a polyester substrate (Column 4, lines 48-49).

Janusauskas discloses, the figures, printing the layers all the same size, and fails to disclose forming an EL Lamp with consecutive layers have decreasing dimensions as claimed. It is the examiners position that the relative dimensions of the successive layers is a matter of design choice and therefore it would have been obvious to one of ordinary skill in the art to select any dimensions for the successive layers, including those as claimed, with a reasonable expectation of successfully forming an EL Lamp. In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

Alternatively, while the examiner maintains the above, the examiner cites Wada as a showing of known structure for an EL Lamp. Wada teaching of an EL Lamp discloses forming successive layers, each with reduced dimensions comparable to the previous layer (Figures). While, Wada does not discloses specific dimensions

Art Unit: 1762

associated with each layer, the layers shown in the figures would suggest to one of ordinary skill in the art to reduce the dimensions on successive layers to form an operable EL Lamp. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Janusauskas to reduce the dimensions on successive layers as suggested by Wada when forming an EL Lamp with a reasonable expectation of success.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6897913 by Tsuboyama et al, and US Patent 6281627 by Arai et al disclose known structure for EL Lamps, inclusive of the reducing dimensions for the successive layers.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Turocy
AU 1762



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER